

F<sup>2</sup> 55. (Twice Amended). A test kit for determining if a BS322 antigen or anti-BS322 antibody is present in a test sample, said kit comprising:

a container containing at least one BS322 polypeptide having a sequence selected from the group consisting of SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.

57. (Amended). A method for detecting at least one antibody specific for a BS322 antigen in a test sample suspect of containing the antibody, said method comprising:

F<sup>3</sup> (a) contacting the test sample with a BS322 polypeptide for a time and under conditions sufficient to allow antigen/antibody complexes to form;

wherein said BS322 polypeptide contains at least one BS322 epitope derived from an amino acid sequence selected from the group consisting of SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28; and

(b) detecting the presence of said complexes as an indication of the antibody specific for the BS322 antigen.

60. (Amended). A method for producing antibodies which specifically bind to a BS322 antigen, said method comprising:

administering to an individual an isolated immunogenic polypeptide in an amount sufficient to elicit an immune response,

F<sup>4</sup> wherein said immunogenic polypeptide comprises at least one BS322 epitope and has a sequence selected from the group consisting of: SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.

61. (Amended). A method for producing antibodies which specifically bind to a BS322 antigen, comprising:

administering to an individual a plasmid,

wherein said plasmid comprises a sequence which encodes at least one BS322 epitope derived from a polypeptide having an amino acid sequence selected from


the group consisting of SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.

62. (Amended). A purified polypeptide, selected from the group consisting of: SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.

63. (Amended). The polypeptide of claim 62, wherein said polypeptide is produced by recombinant techniques.

64. (Amended). The polypeptide of claim 62, wherein said polypeptide is produced by synthetic techniques.

65. (Amended). A test kit for determining if BS322 antigen or anti-BS322 antibody is present in a test sample, said kit comprising:

 a container containing at least one purified polypeptide selected from the group consisting of SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.

66. (Amended). The test kit of claim 65, wherein the purified polypeptide is attached to a solid phase.

67. (Amended). A method for detecting at least one antibody specific for a BS322 antigen in a test sample suspected of containing the antibody, said method comprising:

(a) contacting the test sample with a polypeptide for a time and under conditions sufficient to allow antigen/antibody complexes to form;

wherein the polypeptide contains at least one epitope derived from a sequence selected from the group consisting of: SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28; and

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(b) detecting the presence of said complexes as an indication of the antibody specific for the BS322 antigen.

68. (Amended). The method of claim 67, wherein the polypeptide is attached to a solid phase.

F<sup>5</sup>  
70. (Amended). A method for producing antibodies which specifically bind to BS322 antigen, said method comprising:

administering to an individual an isolated immunogenic polypeptide in an amount sufficient to elicit an immune response,

wherein said immunogenic polypeptide comprises at least one amino acid sequence selected from the group consisting of: SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.

72. (Amended). An isolated polypeptide selected from the group consisting of: SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.

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73. (Amended). The polypeptide of claim 72, wherein said molecule is produced by recombinant techniques.

74. (Amended). The polypeptide of claim 72, wherein said molecule is produced by synthetic techniques.

75. (Amended). A test kit for determining if BS322 antigen or anti-BS322 antibody is present in a test sample, said kit comprising:

a container containing at least one isolated polypeptide selected from the group consisting of SEQ ID NO: 24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.